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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-------------------------|---------------------|------------------|
| 10/648,124   | 08/25/2003  | Aurelian Vasile Lazarut | X-1391 US           | 3211             |
| 24309  | 7590        | 05/09/2005              | EXAMINER            |                  |
| XILINX, INC<br>ATTN: LEGAL DEPARTMENT<br>2100 LOGIC DR<br>SAN JOSE, CA 95124 |             |                         | LEVIN, NAUM B       |                  |
|  |             |                         | ART UNIT            | PAPER NUMBER     |
|  |             |                         | 2825                |                  |

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/648,124

Applicant(s)

LAZARUT ET AL.

Examiner

Naum B. Levin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/25/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-30 are rejected under 35 U.S.C. 102(e) as being unpatentable by Kittross et al. (US Patent 6,681,351).

2. As to claims 1, 6, 11, 16, 21 and 26 Kittross discloses:

(1) A client-server semiconductor verification system, said system comprising:

a client device (user computer) storing a test job (test program 38/test procedures 40) for testing a design of a logic circuit, said test job having test vectors (test elements 42) and configuration data for programmable logic (instructions for configuring DUTs 46) (col.1, ll.11-26; col.4, ll. 32-46; col.7, ll.1-8; col.7, ll.31-36; col.13, ll.60-67; col.14, ll.1-2);

a server (processor) coupled to said client device, said server receiving said test job from said client device (col.4, ll. 48-58; col.14, ll.3-15); and

a system under test (devices under test/DUTs 46) coupled to said server and having programmable logic which is configured using said configuration data, said system under test receiving said test vectors and outputting result vectors to the client

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device by way of said server ("The arrows 30 of FIG. 1 represent information (i.e., signals) exchanged between the memory 22, the I/O device 24, the processor 26 and the test interface 28") (col.1, ll.48-58; col.6, ll.57-65; col.7, ll.20-30; col.12, ll.41-46);

(6) A client-server semiconductor verification system, said system comprising:

a plurality of client devices, wherein a client device of said plurality generates a test job for testing the design of a logic circuit and comprises test vectors and configuration data for programmable logic (col.1, ll.11-26; col.4, ll. 32-46; col.7, ll.1-8; col.7, ll.31-65; col.13, ll.60-67; col.14, ll.1-2);

a server coupled to said plurality of client devices by way of a network, said server receiving said test job from said client device (col.4, ll. 48-58; col.14, ll.3-15); and

a system under test coupled to said server, said system under test having programmable logic which is configured and receiving said test vectors and outputting result vectors to the client device by way of the server (col.1, ll.48-58; col.6, ll.57-65; col.7, ll.20-30; col.12, ll.41-46);

(11) A client-server semiconductor verification system, said system comprising:

a plurality of client devices, wherein a client device of said plurality generating a test job for testing the design of a logic circuit and having test vectors (col.1, ll.11-26; col.4, ll. 32-46; col.7, ll.1-8; col.7, ll.31-65; col.13, ll.60-67; col.14, ll.1-2);

a job distribution server coupled to said plurality of client devices by way of a network, said job distribution server receiving said test job from said client device (col.12, ll.25-39; col.13, ll.60-67; col.14, ll.1-2);

a server coupled to said plurality of client devices by way of said job distribution server, said server receiving said test job from said job distribution server (col.4, ll. 48-58; col.12, ll.41-46; col.14, ll.3-15); and

a system under test having programmable logic which is configured and being coupled to said server, said system under test receiving said test vectors and outputting result vectors to said client device by way of said server and said job distribution server (col.1, ll.48-58; col.6, ll.57-65; col.7, ll.20-30; col.12, ll.41-46);

(16) A method of verifying a semiconductor design by way of a server, said method comprising the steps of:

storing a test job for testing a design of a circuit in a client device, said test job having test vectors and configuration data for programmable logic (col.1, ll.11-26; col.4, ll. 32-46; col.7, ll.1-8; col.7, ll.31-36; col.13, ll.60-67; col.14, ll.1-2);

configuring a system under test having programmable logic by way of said test server (col.1, ll.11-26; col.4, ll. 32-46; col.7, ll.1-8; col.7, ll.31-36; col.13, ll.60-67; col.14, ll.1-2);

coupling said test vectors to said system under test (col.4, ll. 48-58; col.14, ll.3-15);

receiving an output comprising result vectors from said system under test (col.1, ll.48-58; col.6, ll.57-65; col.7, ll.20-30; col.12, ll.41-46); and

comparing said result vectors from said system under test to expected result vectors (col.1, ll.11-25);

(21) A method of verifying a semiconductor design by way of a server, said method comprising the steps of:

coupling a plurality of client devices to a test server, each said client device storing a test job for testing the design of a logic circuit, said test job having test vectors and configuration data for programmable logic (col.1, ll.11-26; col.4, ll. 32-58; col.7, ll.1-8; col.7, ll.31-36; col.12, ll.41-46; col.13, ll.60-67; col.14, ll.1-15);

reconfiguring a system under test by way of said test server (col.1, ll.11-26; col.4, ll. 32-46; col.7, ll.1-8; col.7, ll.31-36; col.13, ll. 16-51; col.13, ll.60-67; col.14, ll.1-2);

coupling test vectors of a predetermined test job to said system under test by way of said test server (col.4, ll. 48-58; col.14, ll.3-15);

receiving an output comprising result vectors from said system under test (col.1, ll.48-58; col.6, ll.57-65; col.7, ll.20-30; col.12, ll.41-46); and

comparing said result vectors from said system under test to expected result vectors (col.1, ll.11-25);

(26) A method of verifying a semiconductor design by way of a server, said method comprising the steps of:

coupling a plurality of client devices to a job distribution server, each said client device storing a test job for testing the design of a logic circuit and having test vectors and configuration data for programmable logic (col.1, ll.11-26; col.4, ll. 32-46; col.7, ll.1-8; col.7, ll.31-36; col.12, ll.25-39; col.13, ll.60-67; col.14, ll.1-2);

reconfiguring a system under test by way of said test server (col.1, ll.11-26; col.4, ll. 32-46; col.7, ll.1-8; col.7, ll.31-36; col.13, ll. 16-51; col.13, ll.60-67; col.14, ll.1-2);

coupling said job distribution server to a plurality of servers, each said server coupling predetermined test vectors to a system under test of a plurality of systems under test (col.1, ll.48-58; col.4, ll. 48-58; col.6, ll.57-65; col.7, ll.20-30; col.12, ll.25-46; col.13, ll.60-67; col.14, ll.1-15);

receiving an output comprising result vectors from a system under test of said plurality of systems under test (col.1, ll.48-58; col.6, ll.57-65; col.7, ll.20-30; col.12, ll.41-46); and

comparing said result vectors from said system under test to expected result vectors (col.1, ll.11-25).

3. As to claims 2-5, 7-10, 12-15, 17-20, 22-25 and 27-30 Kittross recites:

(2), (4), (18) The system/method, wherein said client device further has expected results (col.1, ll.11-25);

(3), (17) The system/method, wherein said client device generates said test vectors (col.7, ll.38-65);

(5)The system, wherein said test vectors and said expected results are generated by an external device (col.1, ll.26-43; col.7, ll.10-19);

(7), (23) The system of claim 6 wherein said server comprises a network interface (col.14, ll.3-15);

(8), (9), (14), (20), (24), (30) The system/method, wherein said server comprises a system under test interface (col.1, ll.48-58; col.6, ll.57-65; col.7, ll.20-30; col.12, ll.41-46);

(10), (19) The system/method further comprising another server coupled to said plurality of client devices by way of the network (col.13, ll.60-67; col.14, ll.1-15);

(12), (13), (15), (22), (27), (28), (29) The system/method further comprising a plurality of servers coupled to said plurality of client devices (col.4, ll. 48-58; col.12, ll.25-46; col.13, ll.60-67; col.14, ll.1-15);

(25) The method of claim 21 wherein said step of comparing comprises comparing said result vectors from said system under test to expected result vectors at said client device (col.1, ll.11-25).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naum B. Levin whose telephone number is 571-272-1898. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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